

DESCRIPTION/SPECIFICATIONS

REHABILITATE OFFICE / VISITOR CENTER  
AT  
QUIVIRA NATIONAL WILDLIFE REFUGE  
(09-036)

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PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. The work consists of the construction of an addition to the existing Headquarters building, and remodeling within the existing building.
- B. The work includes, but is not limited to, demolition, earthwork, site utilities, exterior concrete flatwork, concrete foundations and floor slabs, brick veneer, wood framing, prefabricated wood trusses, asphalt shingle roofing, doors, windows, various interior finishes, geothermal field, HVAC, and electrical systems.

1.02 LOCATION

- A. The site of the work is at Quivira National Wildlife Refuge, located approximately 32 miles west of Hutchinson, Kansas.
- B. Contractors are urged to visit the site and become familiar with existing conditions. Failure of the Contractor to ascertain the nature, location, and conditions which affect the work will not relieve him from the responsibility for successfully performing the work without additional expense to the Government.
- C. Arrangements to inspect the site may be made by contacting the Refuge Manager at 620-486-2393.

1.03 WORK SEQUENCE

- A. Conduct the work in the sequence required by the Government.
  - 1. Construction of the building addition.
  - 2. Demolition and reconstruction in existing building.
- B. Demolition of the existing furnace and air conditioner shall not occur until the new heat pump is ready for installation and connection to the operational geothermal exchange loop. This work shall not be done when the temperature is predicted to be below 40°F.

1.04 JOB CONDITIONS

- A. The building is to be occupied during construction. The access, use and environment of the occupied portions of the building shall be preserved for normal operations. Smoking shall not be permitted within the building.
- B. Ventilate to the exterior excess humidity produced by construction operations, and minimize the diffusion of heat and unconditioned air to the conditioned space. Install temporary air filters at all return air grilles in the work area.

1.05 SURVEY DATA

- A. The Contractor shall be responsible for all construction surveys and staking required for performance of all work to the dimensions, elevations, lines, and grades shown on the drawings.
- B. During initial surveying and staking, establish a reference benchmark for vertical elevation control, and protect and maintain the benchmark for the duration of construction.

1.06 PERMITS AND FEES

- A. The Contractor shall be responsible for obtaining all necessary local, state, and federal permits and licenses, and payment of related fees, per the Contract Clauses.

1.07 APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

- A. All work shall comply with codes and standards applicable to each type of work as listed in individual Sections of these specifications.
  - 1. Materials, applications, and tests specified by reference to published standards of a society, association, code, or other published standards are included in the specifications as if written in their entirety.
  - 2. Where a conflict occurs between referenced documents and the Project Specifications, the Project Specifications govern.
  - 3. Where a conflict occurs between referenced documents, the document containing the most stringent requirements governs.



FS	Federal Specifications GSA Business Service Center 7th & D Streets S.W. Washington, DC 20407
OSHA	Occupational Safety and Health Administration (U.S. Department of Labor) Government Printing Office Washington, DC 20402
PCA	Portland Cement Association 5240 Old Orchard Road Skokie, IL 60606
UL	Underwriters Laboratories 333 Pfingston Road Northbrook, IL 60062
WWPA	Western Wood Products Association (Grading Rules) 1500 Yeon Building Portland, OR 97204

- B. Additional abbreviations will be defined as they appear in the specification.

#### 1.09 MANUFACTURER'S SPECIFICATIONS

- A. Where manufacturer's products and processes are included in the specifications by reference, they shall be included in these specifications as if written in their entirety.
- B. Products and processes included in the specifications shall conform to the manufacturer's latest published specifications.
- C. At the request of the Contracting Officer, the Contractor shall provide a sworn affidavit from the manufacturer certifying that material, products, and processes delivered and used on the project meet the specified requirements. This affidavit shall not relieve the Contractor from his responsibility for full compliance with the requirements of the specifications.

1.10 SUBSTITUTIONS

- A. The contractor shall provide all equipment, materials, and services as specified or noted on the drawings, unless an approved substitution is obtained.
- B. All proposals for substitutions must be submitted in writing to the Contracting Officer for approval. Substitution proposals shall not be accepted prior to bid. Products and materials proposed for substitution shall meet or exceed the salient characteristics of the specified items. Substitution proposals shall include all data necessary for thorough comparison with specified item and reason for the proposed substitution. The Contracting Officer's determination as to whether substitution will be permitted and as to what substitute materials may be used, shall be final and conclusive.
- C. For proposed substitutions, the Contractor shall:
  - 1. Provide all additional drawings and data for approval as considered necessary by the Contracting Officer.
  - 2. Indicate if the proposed substitution will result in a credit to the Government. If the substitution results in additional costs, pay for the additional labor and materials required as a result of the substitution.

1.11 MEANS AND METHODS

- A. Means and methods of construction shall be such as the Contractor may choose; subject, however, to the Contracting Officer's right to reject means and methods proposed which:
  - 1. Constitute a hazard to the work, persons, or property.
  - 2. Will not produce finished work in accordance with terms of the contract.
  - 3. Are contrary to specified means or methods included in the contract.
- B. The right to reject means and methods of the Contractor or subcontractor shall not be construed or interpreted as acceptance of control of means and methods by the Contracting Officer.
- C. The Contracting Officer's approval of means and methods or failure to exercise right to reject means and methods shall not relieve the Contractor of the obligation to complete the work required by the contract.

- D. Total responsibility for control of all means and methods lies with the Contractor for all work.

#### 1.12 COORDINATION

- A. Provide minimum 48 hour advance notice to the Government of electric, telephone, water, sewer, and hvac outages. For outages in excess of one hour, make arrangements with Government for temporary or alternate means of service.
- B. Coordinate work so that station operations will not be restricted and utilities will not be disrupted beyond the end of each work day.
- C. Coordinate all work of the project to facilitate orderly progress and proper sequence of work at all times.
- D. In the event that other contracts are in progress concurrently with this contract, the Contractor shall coordinate his work so as not to disrupt progress of other work, and shall cooperate to facilitate orderly progress of all work.

#### 1.13 SAFETY

- A. Contractor Responsibility.
  - 1. The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local regulations pertaining to the protection of workers, visitors to the site, and persons occupying areas adjacent to the site, including the provisions of 29CFR1910 and 29CFR1926 of the Code of Federal Regulations. The Contractor shall hold harmless the Government for failure to comply with any applicable safety or health regulation on the part of himself, his employees, or his subcontractors.
  - 2. The Contractor shall be responsible for providing medical examinations and maintaining medical records of personnel as required by the regulations.
- B. Provide and maintain a basic first aid kit for use of workers.
  - 1. Provide first aid supplies commensurate with size of project with items necessary for first aid treatment of all injuries.

2. Advise all workers of the location of first aid supplies.
3. Post emergency telephone numbers of the local fire department and the nearest ambulance or hospital in a conspicuous location.

#### 1.14 ENVIRONMENTAL PROTECTION

##### A. Pollution Control

1. The Contractor shall abate and control all environmental pollution arising from construction activities by complying with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, as well as the specified requirements in this contract.
  - a. Compliance with this requirement by subcontractors will be the responsibility of the Contractor.

##### B. Prevention of Water Pollution

1. During construction the Contractor shall comply with all applicable Federal, State, and local laws and regulations concerning the control and abatement of water pollution.
2. The Contractor's construction activities shall be performed by methods that will prevent entrance or accidental spillage of solid matter, contaminants, debris, and other objectionable pollutants and wastes into streams, flowing or dry water-courses, lakes, ponds, and underground water sources. The Contractor shall dispose of all pollutants such as petroleum products, rubbish, cement, concrete, etc., and objectionable material at a jurisdictionally accepted waste management facility.

##### C. Abatement of Air Pollution

1. The Contractor shall comply with applicable Federal, State, and local laws and regulations concerning the prevention and control of air pollution.
2. Construction activities shall be performed in such a manner that air pollution is held to a minimum.

3. Burning of materials, trees and brush, combustible construction materials, and rubbish will not be permitted. Construction debris shall be hauled off the Refuge to a jurisdictionally accepted waste management facility.

D. Fossils and Cultural Materials

1. Should the Contractor discover any fossils or cultural materials during construction operations, such objects shall become the property of the Government. The Contractor shall cease construction operations in the area of the "find," and immediately notify the Contracting Officer of such discovery. Construction operations may proceed in other areas not affected by this clause. Care shall be exercised by the Contractor so as not to damage or collect fossils or cultural materials uncovered during excavation operations.
2. Failure to comply with this requirement may be considered a violation of the Archeological Resources Protection Act of 1979 as amended. Destruction of historic and prehistoric sites and/or unauthorized collection of cultural materials can result in criminal and/or civil penalties. Penalties can include fines, prison sentences, and/or confiscation of equipment.
3. If the Contractor obtains borrow materials from a nongovernment source to perform work required under this project, and an existing borrow site is expanded or a new site is opened in order to obtain such materials, the Contractor shall assure that such borrow area disturbance complies with Section 106 of the National Historic Preservation Act.

E. Environmental Litigation

1. Time lost due to work stoppage because of failure of the Contractor to comply with these requirements shall not be the subject of a claim for extension of time or for costs or damages.

END OF SECTION 01 11 00

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. This Section specifies administrative and procedural requirements for project progress meetings.
- B. Related Work Specified In Other Sections.
  - 1. Construction Schedule - Section 013300 – SUBMITTALS.

1.02 PRE-CONSTRUCTION CONFERENCE

- A. The Contracting Officer, at their discretion, may elect to hold a pre-construction conference, either in person, or by telephone conference, for the purpose of discussing contractual and technical issues critical to the initial phases of the project. Notification of such conference shall be provided approximately at time of contract award. Agenda and major topics of discussion shall be the responsibility of the Contracting Officer.

1.03 PROGRESS MEETINGS

- A. The Contractor shall schedule and administer periodic progress meetings throughout progress of the work, at maximum two-week intervals, and shall perform the following in connection with each meeting:
  - 1. Prepare agenda for meetings.
  - 2. Distribute notice of each meeting a minimum of four days in advance of meeting date.
  - 3. Make physical arrangements for meetings.
  - 4. Preside at meetings.
  - 5. Record significant proceedings and decisions.
  - 6. Provide a description of planned work accomplishments between the current progress meeting and the next meeting.

B. Attendance

1. Contractor
2. Contracting Officer and/or Contracting Officer's Representative (by telephone)
3. FWS On-site Construction Inspector
4. Subcontractors as appropriate to the agenda. \*
5. Suppliers as appropriate to the agenda. \*
6. Others as appropriate to the agenda. \*

Representatives of Subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.

\* Appropriate to the Agenda: Entities concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the project and authorized to conclude matters relating to progress.

C. Suggested Agenda:

1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

2. Review the present and future needs of each entity present including, but not limited to such items as:

Time  
Sequences of work  
Interface requirements between trades  
Submittals  
Off-site fabrication problems  
Deliveries  
Site utilization and access to work area

Temporary facilities and services  
Utility outages  
Hazards and risks  
Quality and work standards  
Housekeeping

PART 2 PRODUCTS

(Not Applicable)

PART 3 EXECUTION

(Not Applicable)

END OF SECTION 013119

PART 1 GENERAL

1.01 SUBMITTALS - GENERAL

- A. Submit action submittals and informational submittals on the technical and administrative aspects of the project. The types of information and documentation required to be submitted during the course of the project may include but not be limited to:
  - Construction Baseline and Progress Schedule / Sequence of Operations
  - Schedule of Values
  - Guarantees, Warranties and Certificates
  - Test Reports
  - Technical submittals
  - Coordination drawings
  - Project Record Drawings
- B. All submittals shall be sent to the Contracting Officer.

1.02 CONSTRUCTION SCHEDULES / SEQUENCE OF OPERATIONS

- A. Submit baseline construction schedule for review after Notice to Proceed, to illustrate the sequence and time allotted for each construction activity in order to achieve completion of the work within the time limit specified in the contract. The schedule shall include the following:
  - 1. Breakdown of work activities in categories as necessary to allow monitoring of progress of work during construction.
  - 2. Sequence of construction by activity with start dates, duration, and finish dates.
- B. Submit construction progress schedules at intervals established in the pre-construction conference updating the baseline schedule to reflect the current project status.
- C. The construction schedule may be prepared in any format commonly used in the construction industry. Schedules prepared through use of scheduling software shall be submitted as hard copy and not electronically. If scheduling software utilizes color for differentiation or explanation of data, the hard copy shall be printed with the same colors.
- D. Submit four copies of the baseline and each periodic progress schedule.

1.03 SCHEDULE OF VALUES

- A. Prior to the first progress payment application submit a Schedule of Values reflecting the cost distribution in the bid schedule, to indicate the dollar value of each category of work or construction trade. At a minimum, the Schedule of Values shall have a line item for each specification section in Divisions 2 through 33.

1.04 GUARANTEES, WARRANTIES, AND CERTIFICATES

- A. Submit guarantees and warranties for building components, systems, or equipment specified to have a warranty period which exceeds the basic one year construction warranty. Complete all blank spaces on warranty forms requiring information prior to submittal.
- B. Guarantees shall extend the full period of the required guarantee period after:
  - 1. Replacement of work found defective during guarantee period.
  - 2. Repair of inoperative items or adjustments to proper working condition of items not operating properly at time of inspection at final completion.

1.05 TECHNICAL SUBMITTALS

- A. Prior to the use or installation of any material or item specified as requiring submittal, the Contractor shall submit the types of data required by each section of the technical specifications (Divisions 2 through 33). This data may include manufacturer's product data, shop drawings, schedules, performance data, samples, color selections, test reports, certifications, and instructions.
- B. The Contractor shall not perform work for which submittals are required prior to receipt of the submittals or samples, approved by the Fish and Wildlife Service.
- C. The Contractor shall allow time in his schedule for submittal review by the Government of a minimum 14 calendar days from time of receipt by the Contracting Officer to time of return posting.

1.06 TEST REPORTS

- A. See Section 01 45 29, Testing Laboratory Services, for test report submittal requirements.

1.07 PROJECT RECORD (AS-BUILT) DRAWINGS

A. Definition.

1. “Project Record Drawings”, also referred to as “As-Built Drawings” means drawings submitted by the Contractor to show the construction as actually completed under the contract.

B. As-Built Drawing Maintenance

1. Maintain at jobsite one complete set of full-size prints of contract drawings, including amendments and modifications, marked and dimensioned to show variations between the construction shown or specified in the contract documents and that actually provided.
2. Mark as-built drawings to show all deviations from the original contract drawings. Include dimensions, locations, elevations, material sizes and specifications, existing conditions that affected the construction and were not shown, and other information required to show the actual as-built condition. Show buried or concealed construction, utilities, items, and features. Show existing utility lines, items, and features revealed during the course of construction. Accurately locate and record existing topographic features which differ from those shown on the contract drawings. Digital photography may be used to supplement, but shall not be a substitute for, as-built drawings.
3. Use standard drafting practice to represent such changes and include such supplementary notes, legends, and details as necessary to clearly portray the as-built construction. Mark the as-built drawings in the following colors:

Red - Additions to the original drawings.

Green - Deletions to the original drawings.

Blue - Any notations necessary to describe or interpret as-built

conditions.

4. Maintain as-built drawings as work progresses. Mark drawings as items and features of work are completed. Do not use record drawings for other purposes. Make available for review by Government at all times.
5. Upon completion of work, certify marked-up print set as correct, sign by Contractor, and deliver to the Contracting Officer.

PART 2 PRODUCTS

(Not Applicable)

PART 3 EXECUTION

3.01 TECHNICAL SUBMITTAL PROCESS

- A. Submittals for each specifications section shall be sent to the Contracting Officer accompanied by a Government-furnished submittal form, which shall be used as the document for approving or disapproving the material. Submittals shall be numbered sequentially, except for resubmittals, which shall use the original number plus sequential letters (A, B, etc). A minimum of four copies of data shall be submitted to allow the Government to retain two copies.
- B. Make all submittals of data, items, materials and samples within the time frame necessary to allow the specified review time, and manufacturer's lead time, fabrication, shipping, etc. so products will be delivered in time for scheduled incorporation into the work. Contractor shall check submittals for completeness and conformity to the contract documents, and mark them to this effect before submitting to the Contracting Officer.
- C. Submit in sufficient detail to establish conformity with contract requirements and specifications. Shop drawings shall be in sufficient detail compatible with the complexity of the project to adequately illustrate the relationship of major components. Submittals on component parts forming a system, or that are inter-related, shall be submitted together as a single submittal.
- D. Where more than one product, option, or feature is described in the submittal, clearly mark the specific item proposed for use. Selection of unmarked items or options will be made by the Government.
- E. Reviewed submittals shall be returned to the Contractor marked with one of the following actions:
  - Approved as submitted.
  - Approved, except as noted. Resubmission not required.
  - Approved, except as noted. Resubmission required.
  - No action taken. See comments on reverse. Resubmission required.
  - Disapproved.
  - Other: (comments as noted)

- F. The Contracting Officer's indication of "Approved" on submittals and samples shall not relieve the Contractor from responsibility for deviations from the requirements of the Contract Documents, unless the Government has been notified in writing and has given its approval to such deviation, nor shall approval by the Government relieve the Contractor from responsibility for errors and omissions in submittals.

END OF SECTION 01 33 00

PART 1 GENERAL

1.01 INDEPENDENT TESTING LABORATORY

A. Testing Laboratory

1. Independent testing laboratory shall be selected by the Contractor and the name and qualifications of the proposed laboratory submitted for approval.
2. Provide qualified personnel to perform specified tests and inspections.

B. Contractor's Responsibilities

1. The Contractor shall conduct and pay for all tests included in these specifications, unless specifically noted or provided by the Government. Provide all tests specified. Failure to provide a specified test shall be considered the same as a failing test.
2. Make available to the testing laboratory, all materials to be tested. Advise laboratory of the identity of material sources and instruct suppliers to allow inspections by the laboratory.
3. Promptly submit written reports from the testing laboratory covering each inspection and test.
4. After initial tests have been performed, if materials, and/or workmanship do not comply with these specifications, the Contractor shall pay for any additional testing that may be required as necessary to insure compliance.

1.02 TEST STANDARDS

- A. Tests shall be conducted in accordance with the requirements of the specifications designated or, where not specified, the latest standards of the American Society for Testing and Materials.

1.03 TESTS AND LABORATORY SERVICES REQUIRED

A. Concrete

1. When requested by the Contracting Officer inspect and test individual materials during concrete work to substantiate compliance with specifications and mix requirements.

2. Aggregates. Test aggregates Contractor proposes to use for compliance with specifications.
3. Air content shall be tested in accordance with ASTM C231. Test air content of first load of concrete placed, and each time test cylinders are cast.
4. Temperature. Measure temperature of concrete mix each time air content is being measured.
5. Slump Test
  - a. Slump shall be tested in accordance with ASTM C143.
  - b. Slump tests shall be taken for the first load of concrete placed each day, and for each load to which water is added to the mix at the job site.
  - c. The Contracting Officer reserves the right to perform (require) additional slump tests at any time.
6. Test Cylinders
  - a. Provide one set of test cylinders for each 25 cubic yards of each class of concrete placed each day, with a minimum of one set of test cylinders made for each day concrete is placed. Each set of test cylinders shall consist of four cylinders. At least two cylinders shall be cast from the first load of concrete placed for that day.
  - b. The Contractor shall make and cure test cylinders in conformity with ASTM C31. No sooner than 24 hours after taking cylinders, carefully transport cylinders to testing laboratory for moisture curing. Test cylinders shall be made in the presence of an authorized representative of the Contracting Officer.
  - c. Identify all test cylinders with symbols to indicate placement locations on the job represented by the test cylinders, and note on record drawings.
7. Perform compression tests. Test one cylinder to failure at 7 days, and two at 28 days. The 28 day test result shall be the average of the strengths of the two specimens. The remaining cylinder may be broken at Contractor's request or the Contracting Officer's discretion at: less than 7 days for

consideration of form removal, 14 days to evaluate rate of strength gain, 7 or 28 days to confirm other breaks, or at 45 days if 28 day breaks are below specified strength. Should the last cylinder not be needed for any of the above purposes, it may be discarded.

8. Compliance and Retesting.
  - a. Fresh Concrete. If concrete materials or plastic concrete fails to meet specified requirements, a second set of tests may be taken from another location within the batch. Concrete materials or plastic concrete which fails to meet specified requirements after sampling two locations shall be rejected.
  - b. Compression Strength Tests. If the 28-day compression test does not meet specified strength, the contractor shall core drill test samples from the in-place concrete, at locations specified by the Contracting Officer, and shall patch the cored area. Compression test failure of in-place samples may result in rejection of in-place concrete, at the discretion of the Contracting Officer.

B. Soil Compaction Testing

1. Determination of Maximum Density: Prior to fill or backfill placement and compaction, the Contractor shall submit a sample of the proposed fill materials to the testing lab for testing to determine the maximum density and optimum moisture content, in accordance with ASTM D698 or AASHTO T99, Method D.
2. Field Density Testing: Determination of in-place density of fill materials shall be made using AASHTO T310 or ASTM D2922. Density test shall be taken in compacted material below the disturbed surface.
3. Compliance and Retesting: When the tested density is below the specified value, the particular layer or portion thereof shall be reworked until the required density has been achieved. Retesting required due to failure of fill materials to meet the specified compaction requirements shall be at the Contractor's expense.

4.	Test Schedule:	
	Fill	One test per vertical foot of fill per fill area
	Footing subgrade	One test per footing wall
	Foundation backfill	One test per two vertical feet of fill per wall
	Slab subgrade and base course	Two tests
	Utility trench	One test per trench per every other lift

C. Structural Steel Welds

1. Field welds on structural steel members and open web steel joists shall be visually inspected according to AWS D1.1.
2. At the testing laboratory's option, field welds judged to be questionable during visual inspection may be tested by one of the following procedures:
  - a. Liquid penetrant inspection per ASTM E165.
  - b. Magnetic particle inspection per ASTM E709.
  - c. Ultrasonic inspection per ASTM E164.

PART 2 PRODUCTS  
(Not Applicable)

PART 3 EXECUTION

3.01 TEST REPORTS

- A. Submit two copies of each test report to the Contracting Officer, with copy to the Contractor, within the following time frame:

Concrete Slump Test and Air Content Test	Verbal or telephone report to Contracting Officer's Representative at conclusion of test. Written report within 4 days of test.
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Concrete Test Cylinder Compression Test	Written report within 4 days of test
Soil Compaction Test	Verbal or telephone report to Contracting Officer's Representative at conclusion of test. Written report within 4 days of test.
Weld Test	Written report within 4 days of test for successful tests. Verbal or telephone report to Contracting Officer's Representative at conclusion of test for failed tests.

END OF SECTION 01 45 29

PART 1 GENERAL

1.01 CONTRACTOR USE OF PREMISES

- A. All operations of the Contractor (including storage of materials) upon Government premises shall be confined to areas authorized or approved by the Contracting Officer.
- B. Other contractors and employees or agents of the Government may for all necessary purposes enter upon the work and premises used by the Contractor, and the Contractor shall conduct his work so as not to impede unnecessarily any work being done by others on or adjacent to the site.
- C. Contractor's Field Office: The Contractor shall be responsible for providing space for his own office use, such as a mobile or prefabricated structure. Connection of the field office to electrical power and payment to the local electric utility shall be the responsibility of the Contractor. Remove field office and restore location no later than time of final completion.
- D. Site Maintenance. Maintain exterior site free of scrap and waste material, packaging, and items that could attract rodents or could be wind-blown. Maintain interior floor areas free of scrap and hazardous materials on a daily basis, and broom clean a minimum of once per week. Provide a trash can with lid for workers food wrappings and waste, and enforce its use.
- E. Waste Disposal. Provide a dumpster or other suitable containers for separate streams of recyclable materials and construction waste. Recycle those materials which are accepted at a recycling facility in Hutchinson. Dispose of debris and construction waste off-site at a jurisdictionally accepted waste management facility. Washing of concrete mix trucks shall be confined to a single location approved by the Refuge Manager, and resulting waste and contaminated soil shall be removed prior to project completion.
- F. The Contractor shall be permitted to utilize Government resources and utilities as described in succeeding paragraphs during execution of the work. Such use shall be conditional upon availability and responsible use, and shall not interfere with Government operations. The Contractor shall be responsible for repair of damages resulting from such use, and shall clean the areas and facilities used when the work is complete.

- G. At the conclusion of earthwork the Contractor shall be responsible for restoring any roads and drives contaminated with mud and dirt from earthwork activities.

### 1.02 WEATHER PROTECTION

#### A. General

1. Provide necessary protection against weather to keep all materials, equipment, and work in progress free from damage. Do not permanently install any materials or finishes over wet substrates.
2. Wet work performed at temperatures below 40 degrees F, or when it is forecasted to be below 40 degrees F within the ensuing 48 hours, shall be properly protected and sufficiently heated, as approved by the Contracting Officer.

### 1.03 TEMPORARY UTILITIES

#### A. Heat

1. Provide temporary heating required by construction operations as described above for weather protection. Provide equipment in quantity or of capacity to maintain specified temperature, and maintain equipment for reliable operation. Provide adequate ventilation for liquid fuel or gas fired units.
2. The heating system within the new addition shall not be used for temporary heating during construction.

#### B. Electrical

1. The Contractor shall be responsible for arranging with the local electric utility for temporary power during construction and paying all resulting connection and service charges for construction of the building addition, and for the Contractor's temporary office. The Contractor may use the electrical system within the building without charge for electricity for work done in the existing building, and for work within the new addition after energizing of the new distribution panel, except for the purpose of temporary heating. While utilizing the electrical system in the building the Contractor shall be responsible for insuring that all tools and equipment are disconnected at the end of each day.

C. Water

1. The Contractor may utilize the domestic water system at the hose connections on the exterior of the existing building for purposes directly related to the performance of the work. The Contractor shall furnish all hookups, material and equipment needed to extend to work areas, and shall remove such at completion of the work. Provide anti-siphon devices at all temporary connections.

D. Toilets

1. The Contractor shall be responsible for providing and maintaining temporary toilet facilities for use by construction personnel.

E. Telephone

1. The Contractor shall be responsible for providing telephone services for his own use during construction. If land line service is desired, the Contractor shall be responsible for making all arrangements for service with the local telephone utility.

1.04 CONSTRUCTION AIDS

A. Barricades

1. Provide and maintain temporary barricades and fences as required for safety at excavations and to the construction site in general. Coordinate barricade locations with the Refuge Manager.

B. Fire Protection.

1. Provide at least one nonfreezing-type fire extinguisher at the worksite. Place in location readily accessible to workers. Provide additional extinguishers at all work locations involving open flame.

END OF SECTION 01 50 00

PART 1 GENERAL

1.01 FINAL INSPECTION

- A. The Contractor shall request a final inspection in writing at least ten (10) days prior to the anticipated date of completion.
- B. Prerequisites for final inspection:
  - 1. Removal of temporary facilities and utility connections.
  - 2. Startup and testing of mechanical and electrical systems.
  - 3. Instruction of Government personnel.
  - 4. Changeover to permanent locks and keying system.
  - 5. Delivery of keys, tools, spare parts, and extra materials to location designated by Contracting Officer.
  - 6. Final submittals.
  - 7. Final cleaning.
  - 8. Contractor certification that all items are properly installed and work is complete and in compliance with all contract terms and conditions.
- C. Upon receipt of request, the Contracting Officer shall either proceed with the inspection or shall notify the Contractor that the work is not substantially complete or ready for inspection. At the conclusion of the inspection, the Contracting Officer shall either certify the project as complete or shall prepare a list of items requiring completion or correction (punch list) before the project will be accepted.
- D. If the work is judged to be incomplete and reinspection is necessary, the Contractor shall request reinspection when all remaining work and the punch list items identified by the Contracting Officer have been completed or corrected.
- E. The Contractor or his project supervisor shall be at the jobsite during the final inspection.

1.02 FINAL SUBMITTALS

- A. Submit all items to the Contracting Officer in accordance with Section 01 33 00.
  - 1. Operation and maintenance manuals.
  - 2. Written guarantees, warranties, and certificates.
  - 3. Project record drawings.
  - 4. Maintenance materials

PART 2 PRODUCTS

(Not Applicable)

PART 3 EXECUTION

3.01 FINAL CLEANUP

- A. Remove tools, equipment, and temporary facilities when no longer required for execution of the work.
- B. Clean the work area, and remove trash and construction waste from Government premises and dispose of off-site at a jurisdictionally accepted waste management facility.
- C. Perform final cleaning operations to produce a building appearance comparable to the result of an average commercial building cleaning program.
  - 1. Remove debris and dust from limited access spaces, including plenums, vaults, chases, manholes, and attics.
  - 2. Vacuum carpets; mop and apply protective finish to hard flooring in accordance with the manufacturer's maintenance recommendations.
  - 3. Clean exposed exterior and interior surfaces and finishes of dirt, dust, and stains. Touch up or otherwise repair marred exposed finishes to eliminate visual defects. Polish bright metal finishes. Clean glass to remove glazing compound, film, and other vision-obscuring materials.

4. Remove temporary labels, protective coverings, dust, and marks from glazing, casework, equipment, and fixtures.
5. Clean plumbing fixtures to a sanitary condition, free of stains, including stains from mineral content in the water.
6. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grilles.
7. Clean light fixtures, lamps, reflectors, and diffusers to full efficiency. Replace burned-out lamps.

END OF SECTION 01 77 00